Listing and Amendments to the Claims

<u>CLAIMS:</u>

1.   **(Currently Amended)** A video decoder for decoding a video bitstream for an image block, comprising:

a motion vector resolution reducer (999) for receiving decoded high resolution motion vectors included in the video bitstream and for reducing an accuracy of the high resolution motion vectors to correspond to a low resolution; and

a motion compensator (960), in signal communication with said motion vector resolution reducer, for forming a motion compensated high resolution prediction using the reduced accuracy motion vectors.

2.   **(Currently Amended)** The video decoder of claim 1, further comprising:

an entropy decoder (910), in signal communication with said motion vector resolution reducer, for decompressing the video bitstream; and

an inverse quantizer/inverse transformer (920), in signal communication with said entropy decoder, for inverse quantizing and inverse transforming the decompressed bitstream to form a decoded prediction residual for adding to the motion compensated high resolution prediction to form a decoded image block.

3.   **(Currently Amended)** A spatial scalable video decoder, comprising:

an upsampler (1015) for upsampling a low resolution prediction residual to form an upsampled prediction residual;

a motion compensator (1035) for forming a motion compensated full resolution prediction; and

an adder, in signal communication with said upsampler and said motion compensator, for adding the upsampled prediction residual to the motion compensated full resolution prediction to form a decoded image block.

4.   **(Currently Amended)** The spatial scalable video decoder of claim 3, wherein said adder comprises:

a first adder (1020), in signal communication with said upsampler and said motion compensator, for adding the upsampled prediction residual to the motion compensated full resolution prediction to form a sum signal; and

a second adder (1025), in signal communication with said first adder, for adding a full resolution enhancement layer error signal to the sum signal to form a decoded block.

5.   **(Original)** The spatial scalable video decoder of Claim 4, wherein the full resolution enhancement layer error signal is intra coded.

6.   **(Currently Amended)** A spatial scalable video decoder for decoding a video bitstream of an image block, comprising:

an entropy decoder (1005) for decompressing the video bitstream;

an inverse quantizer/inverse transformer (1010), in signal communication with said entropy decoder, for inverse quantizing and inverse transforming the decompressed bitstream to form a coded prediction residual;

an upsampler (1015), in signal communication with said inverse quantizer/inverse transformer, for upsampling the coded prediction residual;

a motion compensator (1035), in signal communication with said entropy decoder, for forming a motion compensated prediction full resolution prediction; and

an adder (1020), in signal communication with said upsampler and said motion compensator, for adding the upsampled prediction residual to the motion compensated full resolution prediction to obtain a decoded image block.

7.   **(Currently Amended)** A spatial scalable video decoder for decoding a base layer video bitstream and an enhancement layer video bitstream of an image block, comprising:

an entropy decoder (1005) for decompressing the base layer video bitstream;

an inverse quantizer/inverse transformer (1010), in signal communication with said entropy decoder, for inverse quantizing and inverse transforming the base layer video bitstream and the enhancement layer video bitstream to form a coded base layer prediction low resolution residual;

an upsampler (1015), in signal communication with said inverse quantizer/inverse transformer, for upsampling the coded base layer prediction low resolution residual to form an upsampled base layer prediction residual;

a motion compensator (1035), in signal communication with said entropy decoder, for forming a motion compensated prediction full resolution prediction;

a first adder (1020), in signal communication with said upsampler and said motion compensator, for adding the motion compensated full resolution prediction to the upsampled base layer prediction residual to form a sum signal;

another entropy decoder (1040) for decompressing the enhancement layer video bitstream;

another inverse quantizer/inverse transformer (1045), in signal communication with said other entropy decoder, for inverse quantizing and inverse transforming the decompressed enhancement layer video bitstream to form a coded enhancement layer prediction full resolution residual; and

a second adder (1025), in signal communication with said first adder, for adding the coded enhancement layer prediction full resolution residual to the sum signal to form a decoded image block.

8.   **(Currently Amended)** The spatial scalable video decoder of Claim 7, further comprising a deblocking filter (1050), in signal communication with said second adder, for reducing blocking distortion.

9.   **(Currently Amended)** The spatial scalable video decoder of Claim 8, wherein said deblocking filter ~~(1050)~~ is responsive to enhancement layer mode signals.

10.   **(Currently Amended)** The spatial scalable video decoder of Claim 8, further comprising a high resolution reference picture store ~~(1030)~~, in signal communication with said motion compensator, for storing high resolution reference pictures for use in decoding both the base layer bitstream and the enhancement layer bitstream.

11.   **(Original)** The spatial scalable video decoder of Claim 7, wherein the spatial scalable video decoder is without a low resolution reference picture store.

12.   **(Currently Amended)** A method for decoding a video bitstream for an image block, comprising the steps of:
        receiving decoded high resolution motion vectors included in the video bitstream and reducing ~~(1530)~~ an accuracy of the high resolution motion vectors to correspond to a low resolution; and
        forming ~~(1535)~~ a motion compensated high resolution prediction using the reduced accuracy motion vectors.

13.   **(Currently Amended)** The method of claim 12, further comprising the steps of:
        decompressing ~~(1515)~~ the video bitstream; and
        inverse quantizing and inverse transforming ~~(1520)~~ the decompressed bitstream to form a decoded prediction residual for adding to the motion compensated high resolution prediction to form a decoded image block

14.   **(Currently Amended)** A method for spatial scalable video decoding, comprising the steps of:

upsampling (~~1625~~) a low resolution prediction residual to form an upsampled prediction residual; and

forming (~~1635~~) a motion compensated full resolution prediction; and

adding the upsampled prediction residual to the motion compensated full resolution prediction to form a decoded image block.

15.   **(Currently Amended)** The method of claim 14, wherein said adding step comprises the steps of:

adding (~~1640~~) the upsampled prediction residual to the motion compensated full resolution prediction to form a sum signal; and

adding (~~1655~~) a full resolution enhancement layer error signal to the sum signal to form a decoded block.

16.   **(Original)** The method of Claim 15, wherein the full resolution enhancement layer error signal is intra coded.

17.   **(Currently Amended)** A method for decoding a video bitstream of an image block, comprising the steps of:

decoding (~~1415~~) the video bitstream;

inverse quantizing and inverse transforming (~~1420~~) the decoded bitstream to form a prediction residual;

upsampling (~~1425~~) the prediction residual to form an upsampled prediction residual;

forming (~~1435~~) a motion compensated full resolution prediction from the decoded video bitstream; and

combining (~~1440~~) the upsampled prediction residual with the motion compensated full resolution prediction to obtain a decoded image block.

18.   **(Currently Amended)** A method for decoding a base layer video bitstream and an enhancement layer video bitstream of an image block, comprising the steps of:

inverse quantizing and inverse transforming (1620) the base layer video bitstream and the enhancement layer video bitstream to form a coded base layer prediction low resolution residual;

upsampling (1625) the coded base layer prediction low resolution residual to form an upsampled base layer prediction residual;

forming (1635) a motion compensated prediction full resolution prediction;

adding (1640) the motion compensated full resolution prediction to the upsampled base layer prediction residual to form a sum signal;

inverse quantizing and inverse transforming (1650) the enhancement layer video bitstream to form a coded enhancement layer prediction full resolution residual; and

adding (1655) the coded enhancement layer prediction full resolution residual to the sum signal to form a decoded image block.

19.   **(Original)** The method of Claim 18, further comprising the step of reducing blocking distortion in the decoded image block .

20.   **(Original)** The method of Claim 19, wherein said reducing step is responsive to enhancement layer mode signals.

21.   **(Original)** The method of Claim 19, further comprising the step of storing high resolution reference pictures for use in decoding both the base layer bitstream and the enhancement layer bitstream.